

# Committed to Savings: Using Behavioral Economics to Motivate Members

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RESEARCH INSTITUTE



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Deeply embedded in the credit union tradition is an ongoing search for better ways to understand and serve credit union members. Open inquiry, the free flow of ideas, and debate are essential parts of the true democratic process.

The Filene Research Institute is a 501(c)(3) not-for-profit research organization dedicated to scientific and thoughtful analysis about issues affecting the future of consumer finance. Through independent research and innovation programs, the Institute examines issues vital to the future of credit unions.

Ideas grow through thoughtful and scientific analysis of top-priority consumer, public policy, and credit union competitive issues. Researchers are given considerable latitude in their exploration and studies of these high-priority issues.

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By George A. Hofheimer,  
*Chief Research Officer*

Behavioral economics is an emergent field of study that explains economics by taking into account the often fickle nature of human behavior. This field of study contrasts with classical economic theory, which assumes people are largely driven by rational, utility-maximization models of behavior. As a credit union executive, you can probably attest to the presence of irrational behavior in your interactions with all sorts of financial consumers.

In 2008, Filene's i<sup>3</sup> group piloted a product idea entitled "Online Goal Setting," which was inspired by behavioral economic theory.<sup>1</sup> A small group of credit unions beta-tested this concept with help from an organization called stickK.com. The brainchild of Dean Karlan, a professor of economics at Yale University, stickK.com is the application of a truly innovative idea called "commitment devices" or "commitment contracts." Commitment contracts essentially allow people to take a contract out on themselves to spur some sort of positive activity: to stop smoking, lose weight, or save more money. If someone fails to accomplish their goal, their commitment contract kicks in, and they may be obliged to pay some sort of penalty. For example, someone who is ardently opposed to guns might develop a commitment contract to save \$1,000 in nine months for a new personal computer, with the stipulation that if the conditions are not met, he or she must donate \$50 to the National Rifle Association. The thought is that a personal commitment to accomplish a goal is strengthened by the presence of an actual contract, along with potentially negative consequences.

Given the renewed interest in savings and consumers' financial well-being in this economic environment, we invited Professor Karlan to write up a few ideas applying behavioral economics to the consumer finance setting. What follows is a research brief on the theory and opportunity inherent in understanding this increasingly important subject. The goal of this research brief is to spur credit unions to action and application of these ideas. E-mail [research@filene.org](mailto:research@filene.org) if you are interested in making a commitment at your institution.





### Dean Karlan

Dean Karlan is a professor of economics at Yale University. Karlan is also president of Innovations for Poverty Action (IPA); co-director of the Financial Access Initiative, a consortium created with funding from the Bill and Melinda Gates Foundation; a research fellow of the M.I.T. Jameel Poverty Action Lab; and co-founder and president of stickK.com. In 2007, he received a Presidential Early Career Award for Scientists and Engineers. In 2008, he received an Alfred P. Sloan Research Fellowship. His research focuses on microeconomic issues of financial decision making, specifically employing experimental methodologies to examine interventions in microfinance and health—what works, what does not, and why. Internationally he focuses on microfinance, and domestically he focuses on voting, charitable giving, and commitment contracts. His work on savings and health typically uses insights from psychology and behavioral economics to design and test specialized products. He has consulted for the World Bank, the Asian Development Bank, EBRD, FINCA International, Oxfam, Freedom from Hunger, and the Guatemalan government. Karlan received a PhD in economics from M.I.T., an MBA and an MPP from the University of Chicago, and a BA in International Affairs from the University of Virginia.



## Introduction

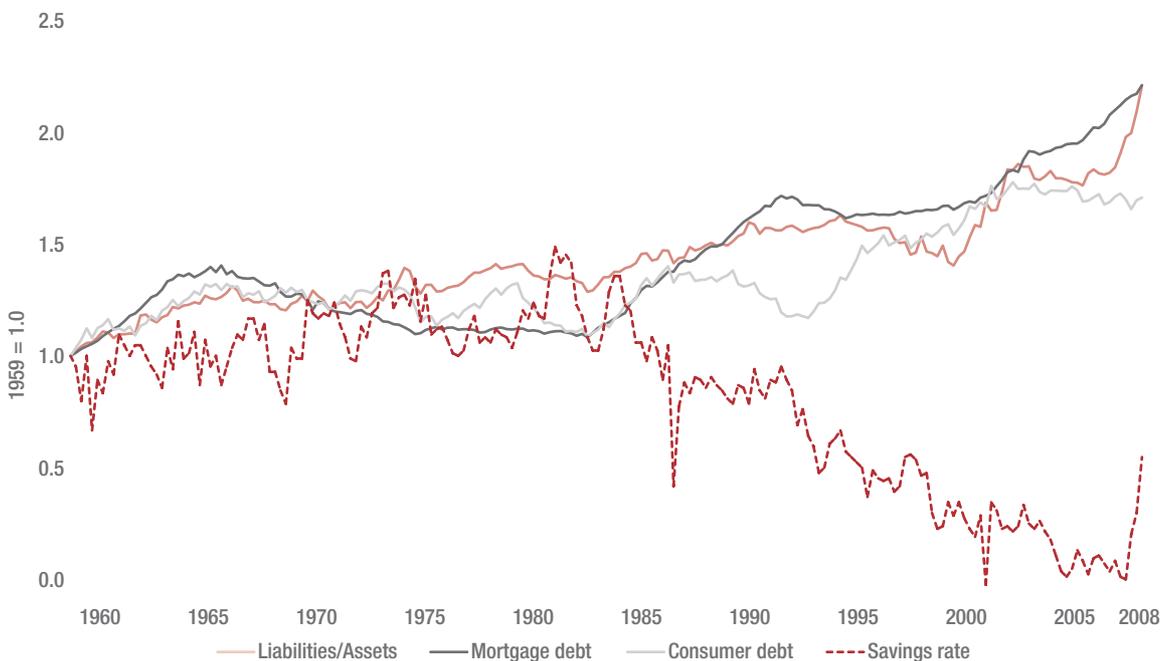
Three truths exist for most people: (1) People make plans and set goals, (2) people often fail to fulfill their plans and reach their goals, and (3) people later regret choices they made that kept them from reaching their goals. This is true for many different aspects of people's lives.

Savings habits in particular have stumped economists and non-economists alike. Most people know intuitively what economists argue from theory—that they should save more during their working years. Yet savings rates remain low in the United States, and high debt levels have ensnared many Americans in this recent financial crisis.

Recent insights from behavioral economics have generated a new line of real-world banking products that offer a solution for the savings woes of many. These products contain various forms of *commitment*, some stronger than others, that help people make decisions *today* that increase their savings rate *later*.

Commitment savings devices for retirement savings have a track record of success in both the developing world and in U.S. workplaces. Now, especially as the recent economic downturn has accentuated some people's desire to increase their personal savings, the time is ripe to bring commitment savings devices to U.S. credit unions.

*Figure 1: Consumer Debt and Savings Rates, 1959 Q1–2008 Q3*



## Motivation

The motivation for commitment savings devices is quite intuitive. Unlike more traditional savings devices, commitment savings devices recognize that people often make decisions differently *today* than they plan to do *generally in the future*, either because they are making a “spur of the moment” decision, or because “they think (wrongly) that whatever they will be doing later will not be as important as what they are doing now” (to borrow the words of researchers Richard Thaler and Shlomo Benartzi [2004]). For example, many people express a desire to increase their personal savings rate by 3% *generally in the future*, but they consistently show themselves unwilling to increase their savings rate *today*, likely because their consumption opportunities today—such as buying a new car, repainting a house, or even just attending a favorite musician’s concert—*seem* to be more important than the consumption opportunities they will face in the future.

From a theoretical perspective, this emphasis on current consumption over future consumption has been explained by economists in several different ways. The relevant economic models, which have names like “hyperbolic preferences,” “models of dual self,” and “temptation models,” all share a common theme: a tension between two parts of each of us, where there is a desire for one part of us to control the other. Simpler explanations exist. For instance, individuals may not fully think through all the possible needs that could emerge in the future, and they may underestimate the total savings required for those needs. Such an underestimate would not be surprising; from psychology, we know that individuals systematically underestimate the “other” category when forming judgments about situations. Over-optimism may also drive this, if people are well aware of the risks they face but simply underestimate their likelihood of happening.

Theoretical debates aside, some empirics remain clear. Repeating this pattern of procrastination from one “today” to the next “today,” people manage to go on for years without increasing their personal savings rate, even though all along they say they wish they would have saved more. This recognition has one important implication for savings behavior: People expressly prefer a higher personal savings rate than the one they currently have. And, this implication is indeed consistent with the savings behavior often observed in the real world.

For individuals who are sophisticated enough to recognize this tendency but who nonetheless are not entirely able to stop their procrastinating or end their spur-of-the-moment decision making, it is possible to offer a *welfare-enhancing* commitment device that commits an individual *today* to follow through *later* on key decisions.

## Evidence in the Field

The Save More Tomorrow (SMarT) program, debuted and studied by researchers Richard Thaler and Shlomo Benartzi, offered employees at three U.S. firms the option of signing up for a program that would automatically increase their personal contribution to a savings program, not today but rather on a future date when they received, or would probably receive, a pay raise. Notably, the commitment was nonbinding, insofar as an employee could withdraw from the program at any time. So the “commitment” of signing up for the SMarT program was only a commitment in that it required some time and effort to withdraw from the program after enrolling. Nevertheless, this nonmonetary commitment proved to be powerful enough to have a marked effect on individuals’ savings behavior. At one firm, only 3 out of 162 participants opted out of the SMarT program before their second pay raise, and by their fourth pay raise over 85% of participants still remained in the program. At a second firm, savings rates for individuals who signed up for the SMarT program rose by roughly 2%, while other employees “did not change their

savings rate much.” And, at the third firm, those individuals who signed up for the SMarT program increased their savings rate by about 1.5%, while savings rates at the firm’s other divisions, where SMarT was not offered, remained mostly steady.

At one firm, only 3 out of 162 participants opted out of the SMarT program before their second pay raise, and by their fourth pay raise over 85% of participants still remained in the program.

These results do more than support the hypothesis that there would be a *demand* for commitment savings devices; these results also show that a commitment savings device can deliver significant results for participating individuals.

Financial institutions have the potential to play an important role in the market for commitment savings devices. One example from the developing world is telling: The SEED (Save, Earn, Enjoy Deposits) program from a rural bank in the Philippines offered roughly 700 individuals the option of opening a commitment savings account. The goal of the SEED accounts was to help clients who wanted to save more but found themselves not achieving their goals. The SEED account offered a choice of two withdrawal-side commitment features: either (1) a time-based maturity, in which the account balance would become available for withdrawal only at a specified future date, or (2) an amount-based maturity, in which the account balance would become available only once the account holder reached a specified goal of total savings balance.

Of those clients offered the SEED program, 202 (28%) opened a SEED account, despite the fact that the account offered no increase

in interest rate in exchange for the loss of liquidity. This suggests there was a strong demand for the commitment features of the SEED account. And, importantly, the SEED accounts were effective: Those who were offered accounts increased their savings by about 80% compared to a control group, and the subgroup of individuals who actually *opened* the account saved 300% more than they would have without the account, as measured through an experimental design. These results together suggest not just a willingness to sign up for a commitment savings account, but also the effectiveness of such accounts at increasing personal savings rates.

## Practice and Opportunities

In practice, a commitment device can mean many things. Some commitments are quite strong, whereas others are simply nudges that make certain outcomes more likely. In general, though, these devices involve commitments that change the relative costs of consumption versus savings in the future. These costs can be monetary, or they can take the form of *time* or *effort* necessary to reverse the commitment (e.g., the cost of filling out a form to change an automatic savings plan). In general, we can divide these costs into deposit-side features, such as automatic transfers into savings accounts, automatic reductions from paychecks, or automatic increases in savings rates; and also withdrawal-side features, such as restricted uses for the savings balance, restricted timing of withdrawals, high withdrawal fees, or a lockbox program.

The potential role for commitment savings devices in the U.S. credit union market is quite large. The demand for commitment savings devices is already evident—for example, consider the many individuals who increase their income tax withholding on each paycheck so as to maximize their income tax refund, which in effect is both a deposit-side commitment (mandatory withholding) and a withdrawal-side commitment (time-based “maturity” of the tax overpayment).

At a credit union, five possible commitment savings devices seem particularly apt:

- A Goal savings account. With a Goal savings account, individuals could choose among the following features: (a) setting a goal amount that they want to reach, (b) setting a purpose for the account (e.g., lump-sum tuition for a night class in computer skills), (c) establishing a deposit plan (ideally with some form of automation), and (d) establishing the penalty for failure, ranging from zero financial cost (but time cost, to fill out the relevant paperwork, in the spirit of the SMarT program described above)

to small financial costs, such as a revised interest rate, to large financial costs, such as fees.

- A Tough Times savings account. This could automatically transfer money from paychecks into a rainy-day savings account, which for the next two years could only be withdrawn if the account holder lost his or her job.
- Borrow Less Tomorrow plans. Minimum monthly payments for debt would be increased in the future, in order to help individuals get out of debt faster and shift into savings mode.
- Save After Debt plans. Minimum monthly payments on debt would continue directly into savings after the debt was successfully retired (this could be built in to a Borrow Less Tomorrow commitment strategy).
- Healthy Living commitment accounts. On a separate but related theme, commitment accounts could be opened that helped to alter *other* behavior by individuals. These (as well as some of the above commitment accounts) could be done in collaboration with stickK.com. For example, an individual could open a commitment savings account to help them stop smoking, lose weight, or exercise more. The account would receive a high interest rate if the account holder successfully engaged in the healthy living practice of their choice—and a zero or even negative interest rate if they failed. Such ideas could be carried out in conjunction with gyms or health clinics, to monitor the healthy living practices.

## Conclusion

Research in behavioral economics has shown us where we are flawed as well as how we can improve. The key is to understand how we make decisions and to design products and services around our nature, rather than hope our nature will change. Richard Thaler and Cass Sunstein's recent book *Nudge* (2009) provides examples of how the way in which choices are presented is often just as important as the choice itself. Their basic thesis is that there is no neutral presentation of choice, so one ought to provide people mechanisms that guide them to the choices they say they want. Commitment contracts are an example of that very approach. They do not force anyone into anything they do not want, but rather guide them to decisions that they themselves say they would prefer to make.



1. See [filene.org/home/innovation/i3ideas/buildwealth/50](http://filene.org/home/innovation/i3ideas/buildwealth/50) for more information on this and other i<sup>3</sup> projects.

## Additional Resources

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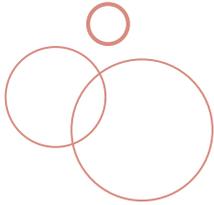
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**For more information on credit unions' initial pilot efforts and examples on commitment contracts, please visit [filene.org/home/innovation/i3ideas/buildwealth/5](http://filene.org/home/innovation/i3ideas/buildwealth/5).**

**For more information on Dean Karlan's research, please see [www.poverty-action.org](http://www.poverty-action.org) or write your own commitment contract at [www.stickk.com](http://www.stickk.com).**



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